

WHAT IS CLAIMED IS:

1. A servo write head assembly comprising:

an AC demagnetizing head that slides in contact with a magnetic tape all of which surface is magnetized in one direction of longitudinal directions thereof, and demagnetizes a data band of the magnetic tape;

a servo write head that slides in contact with said magnetic tape, magnetizes a servo band of the magnetic tape in a reverse direction, and writes a servo signal; and

a guide for regulating a movement in lateral directions of said magnetic tape that is running,

wherein said AC demagnetizing head and said servo write head are integrally configured, and said guide is provided between said AC demagnetizing head and said servo write head.

2. A servo write head assembly comprising:

a DC demagnetizing head that slides in contact with a magnetic tape that is running, and magnetizes at least a servo band of the magnetic tape in one direction of longitudinal directions thereof;

a servo write head that is provided at a downstream side of a magnetic tape travel direction of said DC demagnetizing head, slides in contact with said magnetic tape that is running, magnetizes said servo band in a reverse direction, and writes a servo signal; and

a guide for regulating a movement in lateral directions of said magnetic tape that is running,

wherein said DC demagnetizing head and said servo write head are integrally configured, and said guide is provided between said DC demagnetizing head and said servo write head.

3. A servo writer comprising:

a magnetic tape running system that sends a magnetic tape, all of which surface is magnetized in one direction of longitudinal directions, out of a supply reel, and winds said magnetic tape with a winder, thereby running the magnetic tape;

an AC demagnetizing head that slides in contact with said magnetic tape that is running, and demagnetizes a servo band of the magnetic tape;

a servo write head that slides in contact with said magnetic tape, magnetizes a servo band of the magnetic tape in a reverse direction, and writes a servo signal; and

a guide for regulating a movement in lateral directions of said magnetic tape that is running,

wherein said AC demagnetizing head and said servo write head are integrally configured, and said guide is provided between said AC demagnetizing head and said servo write head.

4. A servo writer comprising:

a magnetic tape running system that sends a magnetic tape out of a supply reel, and winds the magnetic tape with a winder, thereby running the magnetic tape;

a DC demagnetizing head that slides in contact with said magnetic tape that is running, and magnetizes at least a servo band of the magnetic tape in one direction of longitudinal directions;

a servo write head that is provided at a downstream side of a magnetic tape travel direction of said DC demagnetizing head, slides in contact with said magnetic tape that is running, magnetizes said servo band in a reverse direction, and writes a servo signal; and

a guide for regulating a movement in lateral directions of said magnetic tape that is running,

wherein said DC demagnetizing head and said servo write head are integrally configured, and said guide is provided between said DC demagnetizing head and said servo write head.

5 5. A servo write head assembly according to claim 1, wherein said guide is comprised of a roller portion and a flange formed in said roller portion, wherein said roller portion holds down a surface of said magnetic tape with circumferential surfaces thereof, and wherein said flange holds down side edges of said magnetic tape that is running.

6. A servo write head assembly according to claim 2, wherein said guide is comprised of a roller portion and a flange formed in said roller portion, wherein said roller portion holds down a surface of said magnetic tape with circumferential surfaces thereof, and wherein said flange holds down side edges of said magnetic tape that is running.

7. A servo writer according to claim 3, wherein said guide is comprised of a roller portion and a flange formed in said roller portion, wherein said roller holds down a surface of said magnetic tape with circumferential surface thereof, and wherein said flange holds down side edges of said magnetic tape that is running.

8. A servo writer according to claim 4, wherein said guide is comprised of a roller portion and a flange formed in said roller portion, wherein said roller portion holds down a surface of said magnetic tape at a circumferential surface thereof, and wherein said flange holds down side edges of said magnetic tape that is running.

9. A servo write head assembly according to claim 1 which comprises a disc

spring for pushing said guide in lateral directions of said magnetic tape, wherein one end of the disc spring is attached to said guide, and the other end of said disc spring is attached to a support member for connecting said AC demagnetizing head and said servo write head so as to be integrally  
5 configured.

10. A servo write head assembly according to claim 2 which comprises a disc spring for pushing said guide in lateral directions of said magnetic tape, wherein one end of the disc spring is attached to said guide, and the other end of said disc spring is attached to a support member for connecting said DC  
10 demagnetizing head and said servo write head so as to be integrally configured.

11. A servo writer according to claim 3 which comprises a disc spring for pushing said guide in lateral directions of said magnetic tape, wherein one end of the disc spring is attached to said guide, and the other end of said disc  
15 spring is attached to a shaft member provided at an upstream side of a magnetic tape travel direction of said AC demagnetizing head and said servo write head.

12. A servo writer according to claim 3 which comprises a disc spring for pushing said guide in lateral directions of said magnetic tape, wherein one end  
20 of the disc spring is attached to said guide, and the other end of said disc spring is attached to a shaft member provided at a downstream side of a magnetic tape travel direction of said AC demagnetizing head and said servo write head.

13. A servo writer according to claim 4 which comprises a disc spring for  
25 pushing said guide in lateral directions of said magnetic tape, wherein one end of the disc spring is attached to said guide, and the other end of said disc

spring is attached to a shaft member provided at an upstream side of a magnetic tape travel direction of said DC demagnetizing head.

14. A servo writer according to claim 4 which comprises a disc spring for pushing said guide in lateral directions of said magnetic tape, wherein one end of the disc spring is attached to said guide, and the other end of said disc spring is attached to a shaft member provided at a downstream side of a magnetic tape travel direction of said servo write head.

15. A servo write head assembly according to claim 1, wherein said guide pushes both side edges of said magnetic tape oscillating in lateral directions with an energizing force of  $0.490 \times 10^{-2}$  to  $7.84 \times 10^{-2}$  N.

16. A servo write head assembly according to claim 2, wherein said guide pushes both side edges of said magnetic tape oscillating in lateral directions with an energizing force of  $0.490 \times 10^{-2}$  to  $7.84 \times 10^{-2}$  N.

17. A servo writer according to claim 3, wherein said guide pushes both side edges of said magnetic tape oscillating in lateral directions with an energizing force of  $0.490 \times 10^{-2}$  to  $7.84 \times 10^{-2}$  N.

18. A servo writer according to claim 4, wherein said guide pushes both side edges of said magnetic tape oscillating in lateral directions with an energizing force of  $0.490 \times 10^{-2}$  to  $7.84 \times 10^{-2}$  N.

19. A servo writer according to claim 3, wherein said guide pushes both side edges of said magnetic tape oscillating in lateral directions with an energizing force of  $0.490 \times 10^{-2}$  to  $3.92 \times 10^{-2}$  N.

20. A servo writer according to claim 4, wherein said guide pushes both side edges of said magnetic tape oscillating in lateral directions with an energizing force of  $0.490 \times 10^{-2}$  to  $3.92 \times 10^{-2}$  N.